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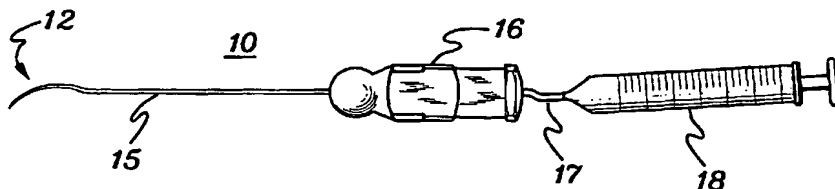
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(54) Title: RETINAL PIGMENT EPITHELIAL CELL CULTURES ON AMNIOTIC MEMBRANE AND TRANSPLANTATION



(57) Abstract—The present invention relates to a composition for implantation in the subretinal space of an eye, the composition including amniotic membrane, which may be cryopreserved human amniotic membrane, and a plurality of retinal pigment epithelial (RPE) cells or RPE equivalent cells present at the amniotic membrane. The amniotic membrane may be intact, epithelially denuded, or otherwise treated. The invention includes the use of amniotic membrane for the culturing of RPE cells thereon, forming a surgical graft for replacement of Bruch's membrane as a substrate, and for the transplanting of RPE cells to the subretinal space. The composition does not elicit immunological reactions to alloantigens or to RPE specific autoantigens; and exerts anti-inflammatory, anti-angiogenic, and anti-scarring effects. The invention includes methods and kits for making or using composites including amniotic membrane and RPE cells. Also disclosed is a device for harvesting RPE cells.

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